

STORM WATER MANAGEMENT SYSTEM USING IoT

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Abstract

The idea of our project is to eradicate the problems of water stagnate , drain water management and heavy traffic jam because of Heavy downpour in almost all the areas. Recently we have noticed a heavy traffic jam in metropolitan city Hyderabad for about 12hrs just because of heavy down pour of rain.

Our intension is to eradicate this problem by finding out a solution by using a Strom water management system using IoT. The poor drainage system is one of the main reasons for the problem of water stagnating at many places in the areas. This stagnate drain water is the cause for deadly diseases and waste production of mosquitoes. Our motivation for this idea is to solve these problems of the public using our system.

1 MARKET RESEARCH

- Global storm water management market is projected to grow at a CAGR of 8.8% by 2023, on the back of increasing number of intense floods and storms coupled with rising urbanization.
- Increase in the number and intensity of landslides due to heavy storm, snow and rainfall drive the adoption of stormwater management solutions for efficient water management and sustainable infrastructure development.
- Moreover, technological advancements, growing investments towards water infrastructure and management systems, and shifting focus of governments towards the adoption of advanced water management systems as compared to traditional wastewater and water management systems is expected to fuel the global stormwater management market in the coming years.

2 HARDWARE REQUIREMENTS

1. Micro-controller
2. Ardiuno IDE
3. Flow sensor
4. Water level sensor
5. Wi-Fi module
6. Mobile/Laptop

3 SOFTWARE REQUIREMENTS

1. Software
2. Ardiuno software
3. Blynk App

4 IMPLEMENTAION

The microcontroller is the heart of the system for which the Ardiuno IDE is cascaded. The flow sensors of water and water level sensor gives the data of

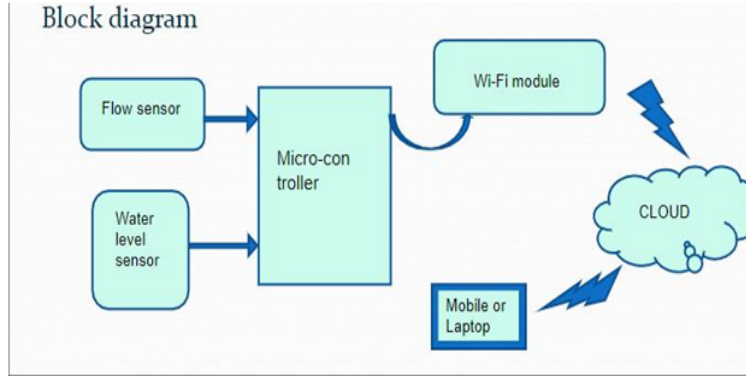


Figure 1: Blockdiagram

water level and flow of storm water and its level at the places of low level areas where the systems are arranged.

The system continuously sends the data of drain water level and its flow rate to the concerned municipality department for prompt response to clear the drain if the flow rate less than the threshold level.

5 FEASIBILITY

- The drains flow will be monitored so that no stagnate of drain occurs.
- The traffic problems because of storm water can be solved.
- The diseases of cholera is mainly because of contaminated water which can be reduced because of well maintenance of drain system. The mosquitoes prevention is possible using this product.

6 References

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